

Attorney Docket No.: UMD-0092
Inventors: Mathews et al.
Serial No.: 10/505,265
Filing Date: April 22, 2005
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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A variant of wild-type HIV-1 Tat protein ~~which~~ comprising an asparagine at amino acid residue 23 and C-terminal amino acid sequence NCYCKKCCFHCQVCFITKALGISYGRKKRRQRRRAHQNSQTHQASLSKQ (SEQ ID NO:4), wherein said variant exhibits higher transcriptional activation and stronger P-TEFb binding than wild-type HIV-1 Tat.

Claims 2-3 (canceled).

Claim 4 (original): A nucleic acid sequence encoding the variant of claim 1.

Claim 5 (original): A vector comprising the nucleic acid sequence of claim 4.

Claim 6 (original): A host cell comprising the vector of claim 5.

Claim 7 (original): A method of inhibiting viral transcription in a cell comprising contacting the cells the variant of claim 1.

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Claim 8 (original): A method of selectively activating cells latently infected with HIV comprising contacting the cells with the variant of claim 1.

Claim 9 (original): An antibody raised against the variant of claim 1.

Claim 10 (original): A vaccine comprising the antibody of claim 9.

Claim 11 (original): A method for protecting an individual against HIV infection comprising administering to the individual the vaccine of claim 10.

Claim 12 (original): A method of neutralizing pathogenic effects of HIV-1 Tat protein in an individual infected with HIV-1 comprising administering to the individual the vaccine of claim 10.

Claim 13 (original): A fusion protein comprising a selected protein fused to the variant of claim 1.

Claim 14 (original): A method for facilitating uptake of a selected protein comprising fusing the selected protein to the variant of claim 1.

Claim 15 (original): A tagged fusion construct comprising the variant of claim 1 fused to a tag for purification of the variant.

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Claim 16 (original): A defective HIV virus comprising the variant of claim 1 and a simian/human chimera virus.

Claim 17 (original): A conditioned cell medium obtained from cells expressing the variant of claim 1.

Claim 18 (original): A diagnostic assay for HIV infection comprising the conditioned medium of claim 17.

Claim 19 (original): A kit for diagnosis of HIV infection comprising the conditioned medium of claim 17.